Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A device for contact-less measurement of distances in multiple directions of an electrically conductive body, ~~wherein~~ said device ~~comprises a plurality of inductive elements, wherein at least one of the plurality of inductive elements is~~ comprising

at least one first inductive element placed essentially around the electrically conductive body;~~, and wherein the other~~

a plurality of second inductive elements or other magnetic field sensors ~~are~~ provided in the vicinity of said ~~one~~ first inductive element;

a high-frequency generator for feeding a high-frequency current to said at least one first inductive element so as to generate a high-frequency magnetic field, said high-frequency current having a frequency high enough for a substantial part of said high-frequency magnetic field to not be able to enter said conductive body due to eddy currents being formed in said conductive body; and

a signal processing arrangement for detecting output signals from said second inductive elements or other magnetic field sensors, said signal processing arrangement being adapted for detecting, in response to a movement of said conductive body in a first direction, a movement of said high-frequency magnetic field in a second direction opposite to said first direction in consequence of said eddy currents.

2. (Currently amended) The device according to claim 1, wherein the first and second inductive elements are coils~~, especially printed coils~~.

3. (Currently amended) The device according to claim 2, wherein the ~~other coils~~ second inductive elements are single coils placed at different angular positions around the body, and wherein said ~~one coil~~first inductive element is a coil wound around the body.

4. (Cancelled)

5. (Cancelled)

6. (Currently amended) The device according to claim 2, wherein the ~~other coils~~second inductive elements are provided in an even number and wherein opposite ~~coils~~ second inductive elements are differentially coupled.

7. (Currently amended) The device according to claim 2, wherein the ~~other coils~~ second inductive elements are provided with capacitances in parallel to form resonant circuits.

8. (Previously presented) The device according to claim 1, wherein the body comprises a flange part and wherein further single coils are placed at different angular positions around the body in vicinity of the surface of the flange part.

9. (Previously presented) Use of the device according to claim 1 for angle detection of a joystick, a steering gear, a rotor of a motor, or computer input means.

10. (Previously presented) Use of the device according to claim 1 for controlling the position of a magnetic bearing.

11. (New) The device of claim 2, wherein said coils are printed coils.

12. (New) The device of claim 1, wherein a gap is present between the body and the first inductive element, said gap being small compared to a diameter of said body at the gap.

13. (New) A method for contact-less measurement of distances in multiple directions of an electrically conductive body, the method comprising:

providing at least one first inductive element placed essentially around the electrically conductive body;

providing a plurality of second inductive elements or other magnetic field sensors in the vicinity of said first inductive element; and

feeding a high-frequency current to said at least one first inductive element so as to generate a high-frequency magnetic field, said high-frequency current having a frequency high enough for a substantial part of said magnetic field to not be able to enter said conductive body due to eddy currents being formed in said conductive body.

14. (New) The method of claim 13, further comprising:

detecting output signals from said second inductive elements or other magnetic field sensors, said output signals reflecting, in response to a movement of said conductive body in a first direction, a movement of said high-frequency magnetic field in a second direction opposite to said first direction in consequence of said eddy currents.

15. (New) The method of claim 14, wherein an angle of a device selected from a joystick, a steering gear, a rotor of a motor, and computer input means is detected.

16. (New) The method of claim 14, wherein a position of a magnetic bearing is controlled based on said output signals from said second inductive elements.